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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,451	02/09/2004	Siaw Teck Sang	ATOCM-0347	3612

23599 7590 01/25/2011  
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EXAMINER
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KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1787

NOTIFICATION DATE	DELIVERY MODE
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01/25/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@mwzb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/773,451	<b>Applicant(s)</b> SANG ET AL.	
	<b>Examiner</b> KEVIN R. KRUER	<b>Art Unit</b> 1787	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-8,10-13,15-20,22-25 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-8, 10-13, 15-20, 22-25 and 27-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. ***Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading.*** If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

#### ***.Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 4-7, 10-13, 15-17, 22-25 and 27-32 are rejected under 35

U.S.C. 103(a) as being unpatentable over Bothe et al (US 5,096,630) in view of EP 0258990 (herein referred to as Hope) and Tanaka et al (US 5,695,838).

Bothe teaches a multilayer structure comprising a polyethylene protective layer (col 5, lines 57+), a metallized layer, a polyolefin adhesive layer, an isotactic polypropylene core layer (col 2, lines 54+) with a thickness of 4-40um (col 4, lines 55+), and an outer heat sealable layer. The propylene core layer is biaxially oriented (col 2, lines 4+) and has a thickness of 4-40um (col 2, lines 1+). The metallic foil may comprise Al, Ag, or Zn and has a thickness of 20-600nm (col 5, lines 18+). The heat sealable surface layer (col 3, lines 45+) may comprise ethylene/propylene or ethylene/propylene/butylene and has a thickness of 0.2-3um (col 4, lines 55+).

Bothe is relied upon as above but does not teach the adhesive layers between the foil and the polypropylene and between the polyester and polypropylene may comprise the claimed tie layer composition. However, Hope teaches a polyolefin containing blend suitable for use as an adhesive. The blend comprises 20-80 parts by weight polypropylene (herein relied upon to read on component B), 10-50wt% linear low density polyethylene (herein understood to read on component D) which may have a density of 0.92 (example 1), and 10-30pbw of a polypropylene grafted with ethylenically unsaturated carboxylic acid or derivative thereof. The graft is included in amounts of 0.001-30wt% (page 2, lines 12+). The blend should have a melt index around 2.5g/10min (see example 1) It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the adhesive taught in EP as the adhesive

taught in Bothe because said adhesive has excellent adhesion between polyolefin and polar substrates.

Hope is relied upon as above but does not teach that the graft copolymer may be replaced with a blend comprising (C1) and (C2). However, Tanaka teaches an adhesive composition comprising 50-90parts by weight of a modified polypropylene comprising a graft consisting of unsaturated carboxylic acid or derivative thereof and (b) 10-50pbw of a modified polyolefin comprising a graft consisting of an unsaturated carboxylic acid or derivative thereof (abstract). The polyolefin may comprise a metallocene catalyzed polyethylene (see examples) with a density of 0.86-0.93 (claim 1). The grafting ratio is 0.01-5wt%, which reads on the claimed content of claim 1. Each component has a melt flow between 0.5-30g/10min (col 4, lines 5+). Said blend has excellent adhesion, heat resistance, gas barrier properties and shrink properties (col 5, lines 17+). Thus, it would have been obvious to the skilled artisan at the time the invention was made to utilize the blend of Tanaka in place of graft component taught in Hope. The motivation for doing so would have been to increase the adhesion of the composition, the shrink properties, and the heat resistance.

Tanaka does not teach the polymers should be polymerized with a metallocene catalyst. However, it is generally known in the art that metallocene catalyst result in compositions with more uniform compositions and better properties. Therefore, it would have been obvious to the skilled artisan at the time the invention was made to polymerize the polymers taught in Tanaka with a metallocene catalyst in order to obtain a more uniform composition with improved properties.

Furthermore, the examiner takes the position that "co-grafting" is a method limitations that does not patentably distinguish the claimed invention from the prior art because there is no evidence of record that "co-grafting" results in a patentably different product. Specifically, the claimed composition and Tanaka both comprise blends of polymers which have been grafted.

4. Claims 8 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bothe et al (US 5,096,630) in view of EP 0258990 and Tanaka et al (US 5,695,838), as applied to claims above, and further in view of Moore et al (US 6,165,160)

Bothe teaches the use of polyethylene protective films over the metallized film but does not teach a printed biaxially polypropylene film may be utilized in place of the PE protective film. However, Moore teaches a metallized packaging film comprising a printed biaxially oriented polypropylene protective film is adhered thereto (col 2, lines 36+). Thus, it would have been obvious to the skilled artisan to adhere a printed biaxially oriented polypropylene film to the metallized film taught in Bothe. The motivation for doing so would have been said layers are functionally equivalent to the polyethylene taught in Bothe.

### ***Response to Arguments***

Applicant's arguments filed have been fully considered but are not persuasive.

Applicant argues Hope teaches the adhesive has excellent adhesion between polyolefin and polar substrates but does not relate to or teach adhesion to metallized

layers. Applicant further argues even combined with the teachings of Tanaka, the references fail to motivate the skilled art to use the claimed composition adjacent to a metallized layer. Said argument is noted but is not persuasive as the skilled artisan would recognize polar substrates which are typically adhered to olefinic substrates include metal (see US 4,198,327; col 1-col 3, line 17 and US 4,394,485). Thus, the examiner maintains the position that Hope is analogous prior art to the primary reference.

Applicant further argues the proposed modification is not obvious because Bothe requires the film to have a visually pleasing appearance at high gloss and the skilled artisan would not have expected that said characteristics could be maintained if a different adhesive was used. In support of said position, applicant points to the teachings at column 1, lines 62+. Said teachings have been fully considered but are not persuasive because the gloss and "pleasing appearance" referred to in Both refer to the metallized layer, not the adhesive layer. The examiner further notes said properties are possessed by the preferred embodiments, but Bothe is not limited to such films.

With respect to claim 31, applicant argues there is no way the skilled artisan could have predicted the film could be openable in the welding band without delamination of the layers. The examiner respectfully disagrees. The examiner initially notes that the skilled artisan would have known how to control the conditions of creating the welding band such that the adhesive strength of the resulting bond was less than the interlayer strength of the laminate. Thus, said characteristic fails to distinguish the claimed invention from the prior art.

With respect to Tanaka, applicant argues the polyolefins disclosed therein are not metallocene catalyzed. Furthermore, applicant argues there is no support cited by the examiner which supports the conclusion metallocene catalysts are typically used to provide compositions with improved uniformity and properties. The examiner respectfully disagrees as said characteristics are commonly associated with metallocene catalyst (see US 5,468,781 and US 5,767,209-each of which teaches metallocene catalyst result in more uniform compositions) including improved properties of the composition (e.g. US 5,604,043).

Applicant further argues that the references fail to teach the blend of polypropylene and polyethylene which are co-grafted. Applicant argues the previously filed 1.132 declaration and the originally filed application demonstrate co-grafting is a method limitation that inherently results in a product that is materially different from a blend of separately grafted polyolefins. Specifically, applicant argues sample 4 of the declaration comprises a mixture of grafted PP and grafted PE which demonstrates high adhesion in comparison to example 3 wherein the polyolefin blend is co-grafted. Applicant argues said showing is sufficient to establish the claimed process limitation inherently results in a materially different product. Specifically, applicant argues four blends employing different grafts are tested. Said argument is not persuasive for reasons of record (see advisory action of 5/20/2010).

For the reasons noted above, the rejection is maintained.



***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN R. KRUEER whose telephone number is (571)272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin R Kruer/  
Primary Examiner, Art Unit 1787